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1632

RAW SEQUENCE LISTING

DATE: 02/13/2002

PATENT APPLICATION: US/09/754,997A

TIME: 15:28:10

Input Set : A:\NI4552.txt

Output Set: N:\CRF3\02132002\I754997A.raw

ENTERED

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4 <110> APPLICANT: Salbaum, Michael J.
6 <120> TITLE OF INVENTION: NOPE Polypeptides, Encoding Nucleic
7   Acids and Methods of Use
9 <130> FILE REFERENCE: P-NI 4552
11 <140> CURRENT APPLICATION NUMBER: US 09/754,997A
12 <141> CURRENT FILING DATE: 2001-01-04
14 <150> PRIOR APPLICATION NUMBER: US 60/174,496
15 <151> PRIOR FILING DATE: 2000-01-04
17 <150> PRIOR APPLICATION NUMBER: US 60/205,789
18 <151> PRIOR FILING DATE: 2000-05-19
20 <160> NUMBER OF SEQ ID NOS: 45
22 <170> SOFTWARE: FastSEQ for Windows Version 4.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 6176
26 <212> TYPE: DNA
27 <213> ORGANISM: Mus musculus
29 <220> FEATURE:
30 <221> NAME/KEY: CDS
31 <222> LOCATION: (1)...(3756)
33 <400> SEQUENCE: 1
34 atg gcg cgg gcg gac acg ggc cgc ggg ctc ctg gtg ctg acc ttc tgc   48
35 Met Ala Arg Ala Asp Thr Gly Arg Gly Leu Leu Val Leu Thr Phe Cys
36 1           5           10           15
38 ctg ctg tcc gcg cgc ggg gag ctg cca ttg ccc cag gag aca act gtc   96
39 Leu Leu Ser Ala Arg Gly Glu Leu Pro Leu Pro Gln Glu Thr Thr Val
40           20           25           30
42 aag ctg agc tgt gat gag gga ccc ctg caa gtg atc ctg ggc cct gag   144
43 Lys Leu Ser Cys Asp Glu Gly Pro Leu Gln Val Ile Leu Gly Pro Glu
44           35           40           45
46 cag gct gtg gtg ctg gac tgc act ttg ggg gct aca gct gct ggg cct   192
47 Gln Ala Val Val Leu Asp Cys Thr Leu Gly Ala Thr Ala Ala Gly Pro
48           50           55           60
50 ccg acc agg gtg aca tgg agc aag gat gga gac act gta cta gag cat   240
51 Pro Thr Arg Val Thr Trp Ser Lys Asp Gly Asp Thr Val Leu Glu His
52 65           70           75           80
54 gag aac ctg cac ctg cta ccc aat ggc tcc ctg tgg ctg tcc tca ccc   288
55 Glu Asn Leu His Leu Leu Pro Asn Gly Ser Leu Trp Leu Ser Ser Pro
56           85           90           95
58 cta gag caa gaa gac agc gat gat gag gaa gct ctt agg atc tgg aag   336
59 Leu Glu Gln Glu Asp Ser Asp Asp Glu Glu Ala Leu Arg Ile Trp Lys
60           100          105          110
62 gtc act gag ggc agc tat tcc tgt ctg gcc cac agc ccg cta gga gtg   384
63 Val Thr Glu Gly Ser Tyr Ser Cys Leu Ala His Ser Pro Leu Gly Val

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64	115	120	125	
66	gtg gcc agc cag gtt gct gtg gtc aag ctt gcc aca ctc gaa gac ttc	432		
67	Val Ala Ser Gln Val Ala Val Val Lys Leu Ala Thr Leu Glu Asp Phe			
68	130	135	140	
70	tct ctg cac ccc gag tcc cag att gtg gag gag aac ggg aca gca cgc	480		
71	Ser Leu His Pro Glu Ser Gln Ile Val Glu Glu Asn Gly Thr Ala Arg			
72	145	150	155	160
74	ttt gaa tgc cac acc aag ggc ctt cca gcc ccc atc att act tgg gaa	528		
75	Phe Glu Cys His Thr Lys Gly Leu Pro Ala Pro Ile Ile Thr Trp Glu			
76	165	170	175	
78	aag gac cag gtg acc gtg cct gag gag ccc cgg ctc atc act ctt ccc	576		
79	Lys Asp Gln Val Thr Val Pro Glu Glu Pro Arg Leu Ile Thr Leu Pro			
80	180	185	190	
82	aag tgg ctc ctc cag atc cta gat gtc cag gac agt gat gca ggc tcc	624		
83	Lys Trp Leu Leu Gln Ile Leu Asp Val Gln Asp Ser Asp Ala Gly Ser			
84	195	200	205	
86	tac cgc tgc gtg gcc acc aat tca gcc cgc caa cga ttc agc cag gag	672		
87	Tyr Arg Cys Val Ala Thr Asn Ser Ala Arg Gln Arg Phe Ser Gln Glu			
88	210	215	220	
90	gcc tcg ctc act gtg gcc ctc aga ggg tct ttg gag gct acc agg ggg	720		
91	Ala Ser Leu Thr Val Ala Leu Arg Gly Ser Leu Glu Ala Thr Arg Gly			
92	225	230	235	240
94	cag gat gtg gtc att gtg gca gcc cca gag aac acc acg gta gtg tct	768		
95	Gln Asp Val Val Ile Val Ala Ala Pro Glu Asn Thr Thr Val Val Ser			
96	245	250	255	
98	gga cag aat gta gtg atg gag tgc gtg gcc tct gct gac ccc acc cct	816		
99	Gly Gln Asn Val Val Met Glu Cys Val Ala Ser Ala Asp Pro Thr Pro			
100	260	265	270	
102	ttt gtg tcc tgg gtc cga cag gat gga aag cct atc tcc acg gat gtc	864		
103	Phe Val Ser Trp Val Arg Gln Asp Gly Lys Pro Ile Ser Thr Asp Val			
104	275	280	285	
106	atc gtt ctg ggc cgg acc aat cta ctc atc gcc agc gcg cag cct cgg	912		
107	Ile Val Leu Gly Arg Thr Asn Leu Leu Ile Ala Ser Ala Gln Pro Arg			
108	290	295	300	
110	cac tct gga gtc tat gtc tgc cga gcc aac aag ccc ctc acg cgt gac	960		
111	His Ser Gly Val Tyr Val Cys Arg Ala Asn Lys Pro Leu Thr Arg Asp			
112	305	310	315	320
114	ttc gcc act gcg gct gct gag ctc cga gtg ctt gct gcc cca gcc atc	1008		
115	Phe Ala Thr Ala Ala Ala Glu Leu Arg Val Leu Ala Ala Pro Ala Ile			
116	325	330	335	
118	tcg cag gca ccc gag gcg ctc tcg cgg acg cgg gcc agc acc gcg cgc	1056		
119	Ser Gln Ala Pro Glu Ala Leu Ser Arg Thr Arg Ala Ser Thr Ala Arg			
120	340	345	350	
122	ttc gtg tgc cgg gcg tcc ggg gag cca cgg ccc gcg ctg cac tgg ctg	1104		
123	Phe Val Cys Arg Ala Ser Gly Glu Pro Arg Pro Ala Leu His Trp Leu			
124	355	360	365	
126	cac gac ggg atc ccg ttg cga ccc aat ggg cgc gtc aag gtg cag ggc	1152		
127	His Asp Gly Ile Pro Leu Arg Pro Asn Gly Arg Val Lys Val Gln Gly			
128	370	375	380	

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130 ggt ggc ggc agc ttg gtc atc act cag atc ggc ctg cag gac gct ggc 1200
131 Gly Gly Gly Ser Leu Val Ile Thr Gln Ile Gly Leu Gln Asp Ala Gly
132 385 390 395 400
134 tac tac cag tgc gta gca gaa aac agc gcg gga act gcc tgt gcc gct 1248
135 Tyr Tyr Gln Cys Val Ala Glu Asn Ser Ala Gly Thr Ala Cys Ala Ala
136 405 410 415
138 gcg ccc ctg gcg gta gtg gtg cgc gag ggg ctg ccc agc gcc ccg act 1296
139 Ala Pro Leu Ala Val Val Val Arg Glu Gly Leu Pro Ser Ala Pro Thr
140 420 425 430
142 cgg gtc aca gcc acg ccg ctg agc agc tcc tct gtg ctg gtg gcc tgg 1344
143 Arg Val Thr Ala Thr Pro Leu Ser Ser Ser Ser Val Leu Val Ala Trp
144 435 440 445
146 gag cgg cct gag ttg cac agc gag caa atc att ggc ttc tct ctt cac 1392
147 Glu Arg Pro Glu Leu His Ser Glu Gln Ile Ile Gly Phe Ser Leu His
148 450 455 460
150 tac caa aag gca agg gga gtg gac aat gtg gag tac cag ttt gca gta 1440
151 Tyr Gln Lys Ala Arg Gly Val Asp Asn Val Glu Tyr Gln Phe Ala Val
152 465 470 475 480
154 aac aat gac acc aca gag ctg cag gtt cgg gac ctg gaa ccc aac acg 1488
155 Asn Asn Asp Thr Thr Glu Leu Gln Val Arg Asp Leu Glu Pro Asn Thr
156 485 490 495
158 gat tat gag ttc tac gtg gtg gcc tac tcc cag ctg ggg gcc agc cga 1536
159 Asp Tyr Glu Phe Tyr Val Val Ala Tyr Ser Gln Leu Gly Ala Ser Arg
160 500 505 510
162 acc tcc agc cca gcc ctg gtg cat aca ctg gac gat gtc ccc agc gca 1584
163 Thr Ser Ser Pro Ala Leu Val His Thr Leu Asp Asp Val Pro Ser Ala
164 515 520 525
166 gca ccc cag ctt acc ttg tcc agc ccc aac ccc tcc gac atc agg gtg 1632
167 Ala Pro Gln Leu Thr Leu Ser Ser Pro Asn Pro Ser Asp Ile Arg Val
168 530 535 540
170 gca tgg ctg ccc ctg ccc tcc agc ctg agc aat gga cag gtg ctg aag 1680
171 Ala Trp Leu Pro Leu Pro Ser Ser Leu Ser Asn Gly Gln Val Leu Lys
172 545 550 555 560
174 tac aag ata gag tac ggt ttg ggg aag gaa gat cag gtt ttc tcc acc 1728
175 Tyr Lys Ile Glu Tyr Gly Leu Gly Lys Glu Asp Gln Val Phe Ser Thr
176 565 570 575
178 gag gtg cct gga aat gag aca caa ctt acg tta aac tca ctt cag cca 1776
179 Glu Val Pro Gly Asn Glu Thr Gln Leu Thr Leu Asn Ser Leu Gln Pro
180 580 585 590
182 aac aaa gtg tac cga gtc cgg att tca gct ggc act ggc gct ggc tat 1824
183 Asn Lys Val Tyr Arg Val Arg Ile Ser Ala Gly Thr Gly Ala Gly Tyr
184 595 600 605
186 gga gtc cct tct cag tgg atg cag cac agg aca cct ggt gtg cac aac 1872
187 Gly Val Pro Ser Gln Trp Met Gln His Arg Thr Pro Gly Val His Asn
188 610 615 620
190 cag agc cat gtt ccc ttt gcc cct gca gaa ttg aag gtg agg gca aag 1920
191 Gln Ser His Val Pro Phe Ala Pro Ala Glu Leu Lys Val Arg Ala Lys
192 625 630 635 640
194 atg gag tcc ctg gtg gtg tca tgg cag ccg ccc cct cac ccc acc cag 1968

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Input Set : A:\NI4552.txt

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195 Met Glu Ser Leu Val Val Ser Trp Gln Pro Pro Pro His Pro Thr Gln
196                               645                               650                               655
198 atc tct gga tac aaa ctc tac tgg gga gag gtg gga aca gag gag gag 2016
199 Ile Ser Gly Tyr Lys Leu Tyr Trp Gly Glu Val Gly Thr Glu Glu Glu
200                               660                               665                               670
202 gca gat ggt gac cgc ccc cca ggg ggt cgt gga gat caa gct tgg gac 2064
203 Ala Asp Gly Asp Arg Pro Pro Gly Gly Arg Gly Asp Gln Ala Trp Asp
204                               675                               680                               685
206 gtc ggg ccc gtg cgg ctg aag aag aaa gtg aag cag tat gaa ctg acc 2112
207 Val Gly Pro Val Arg Leu Lys Lys Lys Val Lys Gln Tyr Glu Leu Thr
208                               690                               695                               700
210 cag tta gtc cct ggc agg ccg tac gag gtg aag ctc gta gct ttc aac 2160
211 Gln Leu Val Pro Gly Arg Pro Tyr Glu Val Lys Leu Val Ala Phe Asn
212 705                               710                               715                               720
214 aaa cac gag gac ggc tac gct gct gtg tgg aag ggc aag acg gag aag 2208
215 Lys His Glu Asp Gly Tyr Ala Ala Val Trp Lys Gly Lys Thr Glu Lys
216                               725                               730                               735
218 gcg ccc acg cca gac ctg cct atc cag agg ggg cca ccg ctg cct cct 2256
219 Ala Pro Thr Pro Asp Leu Pro Ile Gln Arg Gly Pro Pro Leu Pro Pro
220                               740                               745                               750
222 gcc cat gtc cac gca gag tca aac agc tcc act tcc att tgg ctt cgg 2304
223 Ala His Val His Ala Glu Ser Asn Ser Ser Thr Ser Ile Trp Leu Arg
224                               755                               760                               765
226 tgg aag aag cca gac ttt acc act gtc aag att gtc aac tac act gta 2352
227 Trp Lys Lys Pro Asp Phe Thr Thr Val Lys Ile Val Asn Tyr Thr Val
228                               770                               775                               780
230 cgc ttc ggc ccc tgg ggg ctc agg aat gct tcc ctg gtc acc tac tat 2400
231 Arg Phe Gly Pro Trp Gly Leu Arg Asn Ala Ser Leu Val Thr Tyr Tyr
232 785                               790                               795                               800
234 acc agc tct gga gaa gac att ctc att ggc ggc ctg aaa cca ttt acc 2448
235 Thr Ser Ser Gly Glu Asp Ile Leu Ile Gly Gly Leu Lys Pro Phe Thr
236                               805                               810                               815
238 aag tac gag ttt gcg gta cag tcc cac gga gtg gat atg gat ggg ccc 2496
239 Lys Tyr Glu Phe Ala Val Gln Ser His Gly Val Asp Met Asp Gly Pro
240                               820                               825                               830
242 ttt ggc tcc gtc gta gaa cgc tcc acc ctg cct gac cgg cct tca aca 2544
243 Phe Gly Ser Val Val Glu Arg Ser Thr Leu Pro Asp Arg Pro Ser Thr
244                               835                               840                               845
246 cct cct tct gac ctg cgc ctg agc ccc ctg aca cca tcc acc gtt cgg 2592
247 Pro Pro Ser Asp Leu Arg Leu Ser Pro Leu Thr Pro Ser Thr Val Arg
248                               850                               855                               860
250 tta cac tgg tgt ccc ccc acg gag ccc aat ggt gag att gtg gag tat 2640
251 Leu His Trp Cys Pro Pro Thr Glu Pro Asn Gly Glu Ile Val Glu Tyr
252 865                               870                               875                               880
254 cta att ctc tac agc aac aac cac acc cag ccc gaa cac cag tgg aca 2688
255 Leu Ile Leu Tyr Ser Asn Asn His Thr Gln Pro Glu His Gln Trp Thr
256                               885                               890                               895
258 ctg ctc acc aca gag gga aac atc ttc agt gca gag gtc cat ggc cta 2736
259 Leu Leu Thr Thr Glu Gly Asn Ile Phe Ser Ala Glu Val His Gly Leu

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RAW SEQUENCE LISTING

DATE: 02/13/2002

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FILE: 02010

Input Set : A:\NI4552.txt

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260	900	905	910	
262	gag agt gac act cgg tat ttc ttc aag atg gga gcc cgc aca gag gtg	2784		
263	Glu Ser Asp Thr Arg Tyr Phe Phe Lys Met Gly Ala Arg Thr Glu Val			
264	915 920 925			
266	ggg cct ggg ccc ttt tcc cgc ttg cag gat gtg att act ctg caa gag	2832		
267	Gly Pro Gly Pro Phe Ser Arg Leu Gln Asp Val Ile Thr Leu Gln Glu			
268	930 935 940			
270	aca ttc tca gac tcc ttg gat gtg cac gcc gtc acg ggc atc atc gtg	2880		
271	Thr Phe Ser Asp Ser Leu Asp Val His Ala Val Thr Gly Ile Ile Val			
272	945 950 955 960			
274	ggt gtc tgc ctg ggc ctt ctc tgc ctc ctg gcc tgc atg tgt gct ggc	2928		
275	Gly Val Cys Leu Gly Leu Leu Cys Leu Leu Ala Cys Met Cys Ala Gly			
276	965 970 975			
278	cta cga caa agc tcc cac agg gaa gcc ctt ccc gga ttg tcc tcc tca	2976		
279	Leu Arg Gln Ser Ser His Arg Glu Ala Leu Pro Gly Leu Ser Ser Ser			
280	980 985 990			
282	ggc acc cca gga aac cca gcg ctc tac aca aga gct cgg ctt ggg cct	3024		
283	Gly Thr Pro Gly Asn Pro Ala Leu Tyr Thr Arg Ala Arg Leu Gly Pro			
284	995 1000 1005			
286	ccc agt gtc cct gct gcc cat gag ttg gag tcc ctc gtg cat cct cgt	3072		
287	Pro Ser Val Pro Ala Ala His Glu Leu Glu Ser Leu Val His Pro Arg			
288	1010 1015 1020			
290	ccc cag gat tgg tcc cca cca ccc tca gat gtg gaa gac aag gct gaa	3120		
291	Pro Gln Asp Trp Ser Pro Pro Pro Ser Asp Val Glu Asp Lys Ala Glu			
292	1025 1030 1035 1040			
294	gta cac agc ctt atg ggt ggc agt gtt tca gat tgc cgg ggc cac tcc	3168		
295	Val His Ser Leu Met Gly Gly Ser Val Ser Asp Cys Arg Gly His Ser			
296	1045 1050 1055			
298	aag aga aag atc tcc tgg gct cag gca ggg gga cca aac tgg gca ggc	3216		
299	Lys Arg Lys Ile Ser Trp Ala Gln Ala Gly Gly Pro Asn Trp Ala Gly			
300	1060 1065 1070			
302	tcc tgg gca ggc tgt gag ctg ccc cag ggt agt ggt cca agg ccg gct	3264		
303	Ser Trp Ala Gly Cys Glu Leu Pro Gln Gly Ser Gly Pro Arg Pro Ala			
304	1075 1080 1085			
306	ctg acc cgt gct ctg ctg cct cca gcg gga acc ggg cag aca ctg ctg	3312		
307	Leu Thr Arg Ala Leu Leu Pro Pro Ala Gly Thr Gly Gln Thr Leu Leu			
308	1090 1095 1100			
310	ctg caa gcc ctg gtg tat gac ggc ata aag agc aac ggg aga aag aag	3360		
311	Leu Gln Ala Leu Val Tyr Asp Gly Ile Lys Ser Asn Gly Arg Lys Lys			
312	1105 1110 1115 1120			
314	ccg tcc cca gcc tgc agg aat cag gtg gaa gct gag gtc att gtc cac	3408		
315	Pro Ser Pro Ala Cys Arg Asn Gln Val Glu Ala Glu Val Ile Val His			
316	1125 1130 1135			
318	tcc gac ttc ggt gca tcc aaa gga tgt cct gac ctc cac ctc caa gac	3456		
319	Ser Asp Phe Gly Ala Ser Lys Gly Cys Pro Asp Leu His Leu Gln Asp			
320	1140 1145 1150			
322	ctg gag cca gag gaa cca ctg act gca gag act ctg cct tcc acg tct	3504		
323	Leu Glu Pro Glu Glu Pro Leu Thr Ala Glu Thr Leu Pro Ser Thr Ser			
324	1155 1160 1165			

VERIFICATION SUMMARY

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